# THE MRGO REPORT

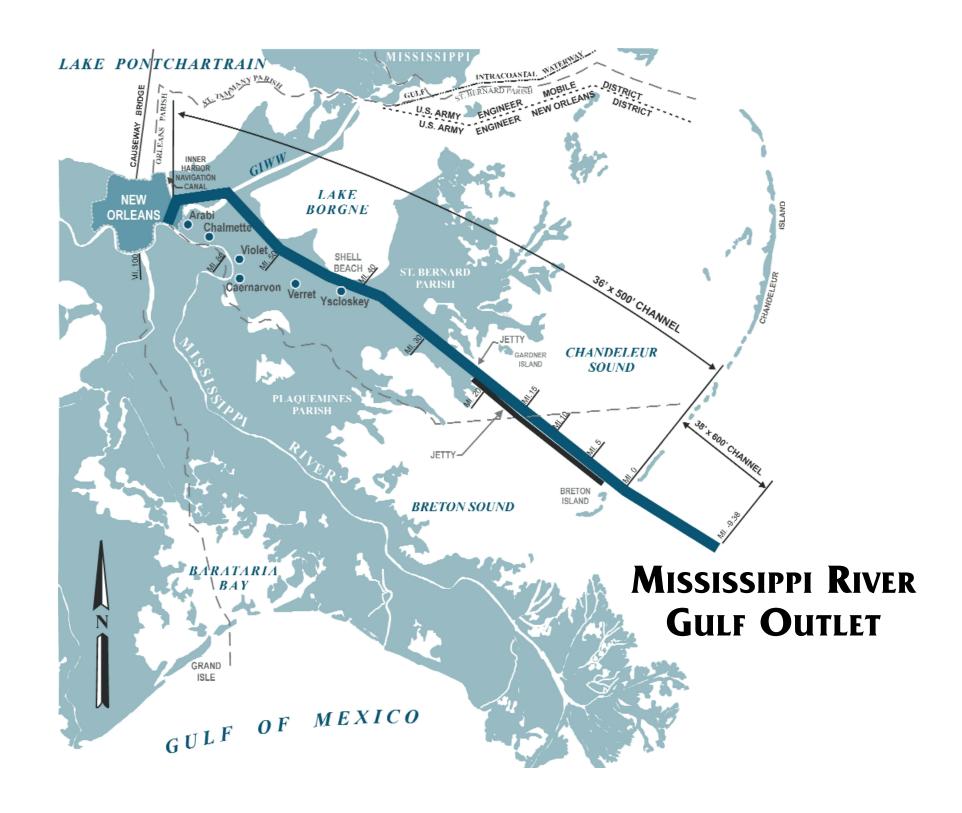
US Army Corps of Engineers.
New Orleans District

MISSISSIPPI RIVER GULF OUTLET

### **Re-evaluation Study**

- To close or not to close?
- ALTERNATIVES FOR THE WATERWAY
- Navigation and commerce
- ECOSYSTEM RESTORATION
- WHAT'S COMPLETED
- What's under way

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## MISSISSIPPI RIVER GULF OUTLET

# **UPDATE ON THE CORPS' RE-EVALUATION STUDY**

The Mississippi River Gulf Outlet is a 76-mile, man-made waterway authorized by the River and Harbor Act of 1956 and the Water Resources Development Acts of 1976, 1986, and 1996. The MRGO extends from the junction of the Inner Harbor Navigation Canal (Industrial Canal) and the Gulf Intracoastal Waterway in New Orleans to the 38-foot depth contour in the Gulf of Mexico. Completed in 1968 at a cost of \$92 million, the channel was dredged through shallow bays, coastal marshes and cypress swamps. It was built to provide an emergency outlet from the Mississippi River in the interest of national defense and general commerce, and to provide a safer and shorter route to the Port of New Orleans.

The first reported cargo on the channel was less than 179,000 tons in 1960, during the early stages of construction. The peak tonnage year for the MRGO was 1978, when 9.4 million tons were reported, along with almost 18,000 vessel trips. Annual tonnage has fluctuated since 1978 and was 5.85 million tons in 2000, the latest report available. Vessel movements since 1978 have decreased by a greater proportion than shown

by the tonnage decline. This presumably represents the use of larger ships.

The foreign-traffic share of total cargo has risen over recent years. As shown in Table 1, imports and exports exceeded 86 percent of cargo in 2000. This represents a change in the composition of traffic from previous years, when foreign traffic was about half to three quarters of all traffic.

#### Mississippi River - Gulf Outlet Components of Historical Freight Traffic, 1970-2000

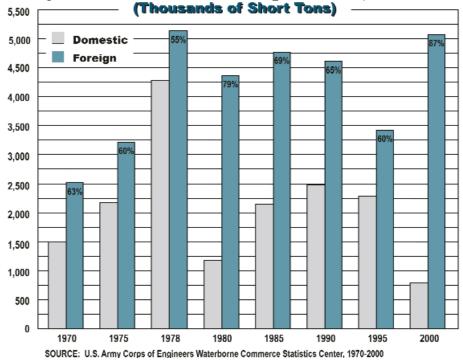


Table 1

#### **The MRGO Report**

The predominant type of vessel using the channel is classified as "Passenger and Dry Cargo," understood to be almost entirely the latter. As seen in Table 2 below, barges are the second-largest vessel category. The year with the greatest number of total trips, almost 18,000, was 1978. This corresponds to the year with the greatest tonnage.

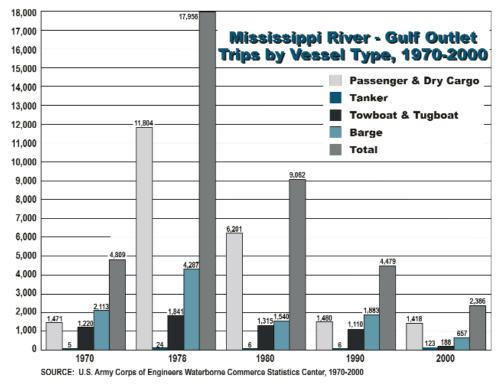


Table 2

The U.S. Army Corps of Engineers has maintained the MRGO since its completion in 1968. Maintenance has consisted of dredging to the authorized depth of 36 feet, bankline protection,

barrier island restoration and wetland creation or restoration with dredged material. The cost of maintenance of the channel has grown in recent years mainly because of environmental restoration work. Dredging costs have averaged \$13 million per year between 1985 and 2002.

A \$3 million comprehensive re-evaluation study was initiated in 1999 to determine the feasibility of continuing to maintain a navigation channel that is 500 feet wide and 36 feet deep and to study other issues related to the construction of the project. The re-evaluation study may reaffirm the existing project or recommend modification. In addition to investigating total and partial closures, the comprehensive study is investigating hurricane storm surge effects, and environmental restoration of the surrounding areas along the channel.

Alternatives under consideration include:

- 1. Continued maintenance of the existing authorized channel, a no-action plan.
- 2. Partial closure of the channel to a 12, 16, or 20-foot depth and 125, 160, or 200-foot width by:
  - Constructing sills
- Constructing a navigable, gated structure at Bayou LaLoutre
- 3. Total closure of the channel by constructing a dam, sill or dike

Allowing channel to silt in can also help in both partial or total closure.

Ecosystem restoration plans are being considered in the study. Some of these plans include stabilizing the banks, creating marsh along the channel and Lake Borgne, restoring natural ridges, constricting breaches along the channel, building weirs or baffles to restrict navigation to shallow-draft vessels, building a freshwater diversion channel and control structure near Violet, and building an MRGO closure structure such as a floodgate or lock at Bayou la Loutre. In fact, the Corps' maintenance program has been working to restore the ecosystem since 1988. Over that period, about 12 miles of banks have been stabilized, foreshore protection has been placed, and lands and barrier island habitat have been created using material dredged from the channel.



**Restoring marsh** Dredged material is used to rebuild marsh along the MRGO jetty. Over 800 acres have been similarly created since 1988.



**Rock protection** Rock placed along the MRGO provides foreshore protection and retention of dredged mateial used to restore wetlands.

Another initiative under the Corps' maintenance program is partnering with Tulane University and the Delft University of Technology in The Netherlands to examine historical trends in maintenance dredging costs and bank erosion. The purpose of this initiative is to identify methods to manage sediment and water along the channel corridor, and to reduce maintenance costs while protecting the environment. Plans could include bank stabilization, wetland creation and foreshore protection through "active management," where shoaling would be prevented rather than just periodically removed.

#### **Completed efforts under the study include:**

- Salinity modeling of the changes in the Mississippi and Louisiana estuaries of the Lake Pontchartrain Basin, Lake Borgne, and Biloxi Marsh.
- An investigation of the past and present conditions of the fish and wildlife habitat and water quality of the Lake Pontchartrain and MRGO area.
- Development of land-loss maps to determine the wetland losses since 1990.
- A channel sedimentation analysis to predict the shoaling rates and develop operation and maintenance costs.
- A baseline, or first phase, regional economic impact analysis for the closure of the MRGO by the University of New Orleans. According to his analysis of 1999 data, economic effects of cargo moving through the MRGO were \$117 million of direct spending in the local economy, and a total impact of \$1.47 billion on the Louisiana economy. This spending generated over \$247 million in earnings and supported over 11,000 permanent jobs in the New Orleans area and other areas of the state.
- Development of cost estimates for the proposed closure and ecosystem restoration plans, which are being used in the economic analysis for a recommended plan.
- A benefit to cost analysis of the without and with the project conditions.

• Public meetings to gather input for the study from residents and concerned parties, in compliance with the National Environmental Policy Act (NEPA) to assist in the preparation of an environmental impact statement.

#### Other efforts currently underway include:

- Alternative screening and plan selection. Proposed alternatives are screened based on costs and benefits, and a plan is selected for further detailed study and approval.
- Real estate activities include research on possible impacts on property owners with regards to right of way.
- Determine the benefits of the proposed ecosystem restoration plans. Proposed plans are being screened based on their environmental benefits and incremental cost.

Any plan that recommends closure of the channel would have to be coordinated with the completion of construction of the Inner Harbor Navigation Canal Lock (populary known as the Industrial Canal Lock) replacement since deep-draft navigation traffic would have to be redirected through it. Construction of the Industrial Canal Lock is currently scheduled for completion in 2013, if funding is available.

To ensure that the study incorporates the views, issues and concerns of all interested parties, an MRGO study task force and five subcommittees were created in 1999 by the Environmental Protection Agency. The Task Force Committee has met periodically with the Corps of Engineers to discuss



**Lock forebay** The forebay of the Industrial Canal Lock is the channel that connects it, and the canal, with the Mississippi River (right).

progress. Task Force Committee members include representatives of federal and state agencies, the navigation industry and other organizations.

Participants include Louisiana Department of Natural Resources, Lake Pontchartrain Basin Foundation, St. Bernard Parish Government, U.S. Fish and Wildlife Service, Plaquemines Parish Government, U.S. Environmental Protection Agency, Governor's Office of Coastal Affairs, Port of New Orleans, Steamship Association of Louisiana, New Orleans Regional Chamber of Commerce and the City of New Orleans.

The Corps' MRGO study team is working to develop a plan that will proceed to a full feasibility detailed analysis by early 2003 and a draft report recommending a plan for approval by summer 2003. Ecosystem restoration plans will be features of the recommended plan for Congressional approval.

Completion of the study is projected for October 2003.



**MRGO wetlands** These wetlands are near the intersection of Bayou la Loutre and the MRGO. The MRGO study seeks ways of protecting such wetlands.

#### **MRGO facts:**

- The 76-mile MRGO channel was completed in 1968 for \$92 million.
- Nearly 6,000 jobs are generated by MRGO-related activity.
- Since 1988, 800 acres have been created with dredged material from the channel.
- A deep-draft ship on the MRGO carries about as much as 3,000 semi-trucks.
- Total impact of the channel on the Louisiana economy is \$1.47 billion.
- The MRGO was built to provide a shorter, safer route to the Port of New Orleans.
- Annual MRGO maintenance averages \$13 million.

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